

PATENT COOPERATION TREATY

PCT

NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

Commissioner
US Department of Commerce
United States Patent and Trademark
Office, PCT
2011 South Clark Place Room
CP2/5C24
Arlington, VA 22202
ETATS-UNIS D'AMERIQUE
in its capacity as elected Office

Date of mailing (day/month/year) 27 September 2001 (27.09.01)	
International application No. PCT/US01/01024	Applicant's or agent's file reference 1508/2G350-W
International filing date (day/month/year) 11 January 2001 (11.01.01)	Priority date (day/month/year) 11 January 2000 (11.01.00)
Applicant COLLINS, Gregory, R. et al	

1. The designated Office is hereby notified of its election made:

☒ in the demand filed with the International Preliminary Examining Authority on:
06 July 2001 (06.07.01)

☐ in a notice effecting later election filed with the International Bureau on:

2. The election ☒ was
☐ was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No.: (41-22) 740.14.35	Authorized officer Odile ALIU Telephone No.: (41-22) 338.83.38
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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 1508/2G350-W	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/US01/01024	International filing date (day/month/year) 11 JANUARY 2001	Priority date (day/month/year) 11 JANUARY 2000
International Patent Classification (IPC) or national classification and IPC Please See Supplemental Sheet.		
Applicant NEPHROS, INC.		

- This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
- This REPORT consists of a total of 4 sheets.
☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority. (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).
These annexes consist of a total of 0 sheets.

- This report contains indications relating to the following items:
 - ☒ Basis of the report
 - ☐ Priority
 - ☐ Non-establishment of report with regard to novelty, inventive step or industrial applicability
 - ☐ Lack of unity of invention
 - ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
 - ☐ Certain documents cited
 - ☐ Certain defects in the international application
 - ☐ Certain observations on the international application

Date of submission of the demand 06 JULY 2001	Date of completion of this report 12 AUGUST 2001
Name and mailing address of the IPEA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231	Authorized officer SUN UK KIM DEBORAH THOMAS PARALEGAL SPECIALIST
Facsimile No. (703) 305-3250	Telephone No. (703) 308-0664

I. Basis of the report**1. With regard to the elements of the international application: ***☒ the international application as originally filed☒ the description:pages 1-13pages NONE, as originally filedpages NONE, filed with the demandpages NONE, filed with the letter of _____☒ the claims:pages 14-20pages NONE, as originally filedpages NONE, as amended (together with any statement) under Article 19pages NONE, filed with the demandpages NONE, filed with the letter of _____☒ the drawings:pages 1-2pages NONE, as originally filedpages NONE, filed with the demandpages NONE, filed with the letter of _____☒ the sequence listing part of the description:pages NONEpages NONE, as originally filedpages NONE, filed with the demandpages NONE, filed with the letter of _____**2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.**

These elements were available or furnished to this Authority in the following language _____ which is:

☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).☐ the language of publication of the international application (under Rule 48.3(b)).☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).**3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:**☐ contained in the international application in printed form.☐ filed together with the international application in computer readable form.☐ furnished subsequently to this Authority in written form.☐ furnished subsequently to this Authority in computer readable form.☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.**4. ☒ The amendments have resulted in the cancellation of:**☒ the description, pages NONE☒ the claims, Nos. NONE☒ the drawings, sheets/fig NONE**5. ☐ This report has been drawn as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).****

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

**Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US01/01024

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability, citations and explanations supporting such statement**1. statement**

Novelty (N)

Claims 1-24

YES

Claims NONE

NO

Inventive Step (IS)

Claims 1-24

YES

Claims NONE

NO

Industrial Applicability (IA)

Claims 1-24

YES

Claims NONE

NO

2. citations and explanations (Rule 70.7)

Claims 1-24 meet the criteria set out in PCT Article 33(2)-(3), because the prior art does not teach or fairly suggest the blood cleansing system of claim 1 comprising a heat control module for producing heated dialysate fluid, a first dialyzer including a first dialysate compartment having a first dialysate inlet for receiving the heated dialysate fluid and a second dialyzer including a second dialysate compartment having a second dialysate inlet for receiving dialysate at a temperature lower than a temperature of the heated dialysate, the blood cleansing system of claim 11 comprising a heating control module for producing heated dialysate fluid connected to a second dialysate outlet of a second dialyzer and a first dialysate inlet of a first dialyzer, the method of cleaning blood of claim 12 comprising the steps of heating at least a portion of a dialysate from source to produce heated dialysate which is delivered to a first dialysate inlet of a first dialyzer, delivering dialysate to a second dialysate inlet of a second dialyzer at a temperature lower than a temperature of the heated dialysate and the method of cleaning blood of claim 23 comprising the steps of diafiltering blood in a first dialyzer with dialysate in a first dialysate compartment having a first elevated temperature and diafiltering a partially diafiltered blood in a second dialyzer with dialysate in a second dialysate compartment having a second temperature less than the first temperature.

Claims 1-24 have industrial applicability as defined by PCT Article 33(4) because the claimed subject matter can be made and/or used in hemodiafiltration industry.

----- NEW CITATIONS -----

NONE

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US01/01024

Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: Boxes I - VIII

Sheet 10

CLASSIFICATION:

The International Patent Classification (IPC) and/or the National classification are as listed below:

IPC(7): B01D 61/24, 61/26, 61/28 and US Cl.: 210/85, 87, 194, 195.2, 321.6, 321.71, 321.72, 321.75, 321.84, 433.1, 434, 645, 646, 647, 739, 805; 422/44; 604/4.01, 5.01

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US01/01024

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) :B01D 61/24, 61/26, 61/28

US CL :Please See Extra Sheet.

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 210/85, 87, 194, 195.2, 321.6, 321.71, 321.72, 321.75, 321.84, 433.1, 434, 645, 646, 647, 739, 805; 422/44; 604/4.01, 5.01

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5,660,722 A (NEDERLOF) 26 August 1997 (26.08.97), see entire document.	1, 11-12, 23
A	SHINZATO, T. et al. Infusion-Free Hemodiafiltration: Simultaneous Hemofiltration and Dialysis with No need for Infusion Fluid, ARTIFICIAL ORGANS 1982. Vol. 6, pages 453-456.	1, 11-12, 23



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E" earlier document published on or after the international filing date	"Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&" document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means	
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search

17 FEBRUARY 2001

Date of mailing of the international search report

25 APR 2001

Name and mailing address of the ISA/US
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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US01/01024

A. CLASSIFICATION OF SUBJECT MATTER:

US CL :

210/85, 87, 194, 195.2, 321.6, 321.71, 321.72, 321.75, 321.84, 433.1, 434, 645, 646, 647, 739, 805; 422/44; 604/4.01, 5.01